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## CASE STUDY

### Odor and Air Pollution Control

Delta Air Lines



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Purafil effectively eliminates odors for Delta Air Lines travelers and staff.

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**NO MORE FOUL-SMELLING ODORS FOR DELTA PASSENGERS AND STAFF THANKS TO PURAFIL**

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## THE CHALLENGE

**Complaints from airport passengers and staff were mounting due to offensive odors at the reservations desk.**

Salt Lake City International Airport is Delta Air Lines' third largest hub with more than 150 scheduled daily departures. Typical of any airport, jet fumes from runway traffic and vehicular exhaust from ground transportation make their way indoors through nearby HVAC air intakes.

Unique to Salt Lake City, however, were additional odors from the Great Salt Lake. Set within the Great Basin with no source of outlet, the lake's shores brim with brine shrimp and other tiny life forms wash up and decay.

On a windy day, odors from decaying brine combined with exhaust fumes permeated the air in the Delta Air Lines' Reservations Center staff and customers. Delta Air Lines took swift action to address the complaints voiced by staff and customers and contacted local Purafil representative, Roto Aire Filter Sales & Service.

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## THE SOLUTION

**The team zeroed in on the sources of odors and the precise filtration solutions needed.**

Representatives from Delta Air Lines' Reservations Center met with Roto Aire. Their first objective: to identify sources of odors and their proximity to the center's main air intakes. After a thorough inspection, the team concluded that gaseous contaminants were being pulled indoors through three main HVAC air intakes located on the roof of the facility, close to the runway and the briny southeast border of the Great Salt Lake.

Roto Aire consulted with Purafil to identify the types of gas-phase air filtration media required to meet the center's unique needs. Purafil offers a variety of media, each chemically engineered to remove a specific gas or gaseous contaminant group.



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Jet fumes, are composed of a variety of gaseous contaminants, including acetaldehyde, nitric oxide, sulfur dioxide and volatile organic compounds (VOC's). Purakol™ activated carbon media is effective at removing VOC's, but removing sulfur dioxide or nitric oxide gases requires an active-oxidant- impregnated media – Purafil® Select. Odors from decaying brine are primarily composed of amine molecules, which require both Purakol and Purafil Select for complete removal. Based on the unique variety of gases present, Roto Aire recommended Purafil's Select CP Blend media, a 50/50 volume blend of both Purakol and Purafil Select media.



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## THE RESULTS

**The filtration system now in place uses precisely chosen Purafil products that have effectively eliminated the odors. Passengers and staff no longer voice complaints about foul-smelling air.**

Utilizing Purafil's Front Access Cells, Roto Aire designed an air filtration system for each air intake. Three filter housings were built and structurally affixed over the intakes, each measuring approximately 120 inches (305 cm), square and 96 inches (245 cm), high. Inside the housings, Purafil's Front Access Cells containing Purafil Disposable Modules work night and day to eliminate airborne contaminants. The cells can be stacked horizontally or vertically allowing for flexibility in terms of size and media bed depth. The installed system includes 153 Front Access Cells containing more than 500 Disposable Modules.

Since Purafil's systems were installed, complaints of odors have ceased. Facilities Supervisor for Delta Air Lines' Reservations Center Quinn Stringham stated, "Our interest in providing a clean working area for our employees combined with Purafil's specialized knowledge resulted in a win/win situation."

